

SHORT COMMUNICATION

Storozhenko S.Yu. NEW UPPER CARBONIFEROUS GRYLLOBLATTIDS (INSECTA, GRYLLOBLATTIDA) FROM SIBERIA - Far-Eastern Entomologist, 1996. N 26 : 18-20.

С.Ю.Стороженко. Новые верхнекарбоновые гриллоблаттидовые (Insecta, Grylloblattida) из Сибири // Дальневосточный энтомолог. 1996. N 26 : 18-20.

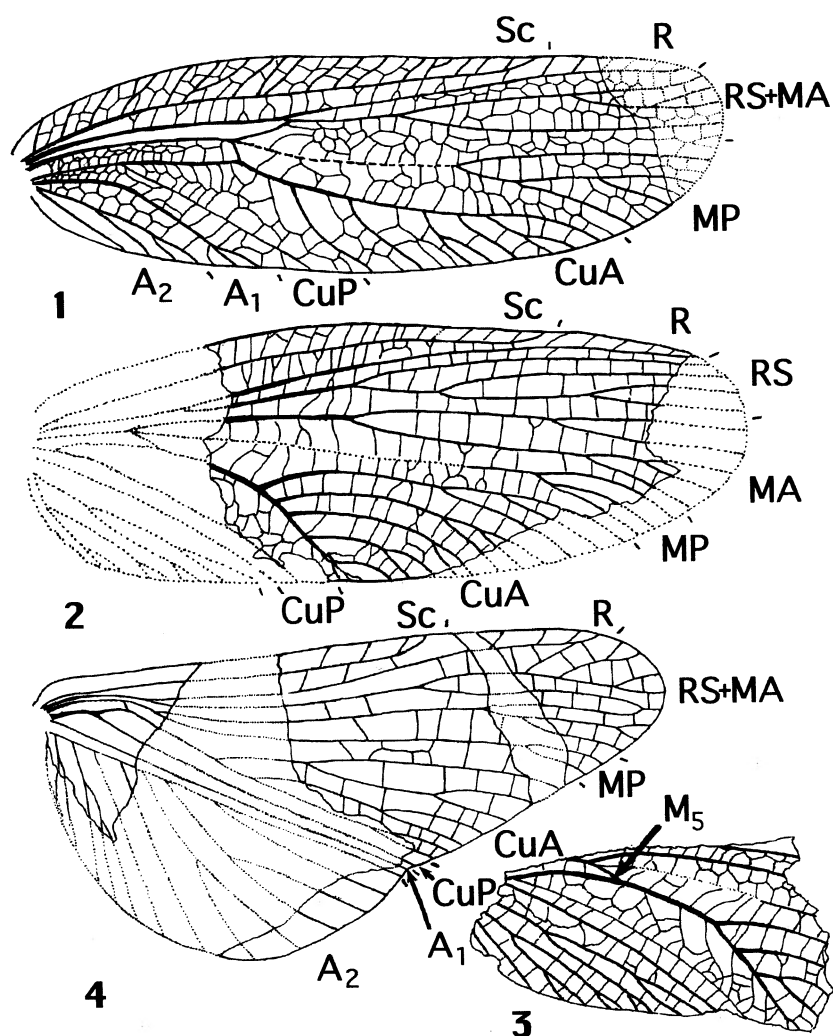
The present paper is based on material deposited in the Paleontological Institute of Russian Academy of Sciences, Moscow (PIN RAS). Before description of new taxa one nomenclature question must be solved. Based on venation of fore wing genus *Narkema* Handlirsch, 1911 and family Narkemidae Handlirsch, 1911 were placed in *Insecta incertae sedis*; genera *Narkemina* Martynov, 1931, *Paranarkemina* Pinto et Ornellas, 1980 and *Narkeminopsis* Whalley, 1979 have been treated as belonging to separate family Narkemocacurgidae Pinto et Ornellas [2]. But Narkemocacurgidae is not corresponding to nominative generic name [1] and must be changed to Narkeminidae (Pinto et Ornellas, 1978) Storozhenko, nom. n. (type genus *Narkemina* Martynov, 1931).

Family Daldubidae Storozhenko, fam. n.

Type genus: *Dalduba* Storozhenko, gen. n.

DIAGNOSIS. Two stages of individual development are known: subimago (nymph with developed but partly abbreviated wings) and imago (with well developed wings). Imago: Fore wing large, membranous, without hairs, with broadly rounded apex. The subcosta (*Sc*) terminating on the costa (*C*) in apical fourth of wing. Costal area broad, sending off a series of simple or Y-shaped veinlets. The radius (*R*) simple; its sector (*RS*) arising in proximal 1/3 or 1/4 of wing, pectinate, directed towards apex and anterior margin of wing. The media (*M*) divided in a well sclerotized main anterior branch (*MA*), a concaved and desclerotized near the middle main posterior branch (*MP*) and strong *M5*. *MA* anastomosed with *RS* (in such case simple or with short fork near apex) or free (in those case with 4-5 dichotomous branches directed towards apex and posterior margin of wing). The anterior cubitus (*CuA*) forked into 8-11 branches. The posterior cubitus (*CuP*) unbranched, concaved. Anal area short and narrow. The first anal vein (*A1*) simple or with short fork, slightly curved or stright; *A2* with 4-10 branches. Cross-veins simlpe, H- or Y-shaped or forming a 2-3 row of cells. Hind wing membranous, with slightly acute apex. *Sc* terminating on the *C* in apical third of wing. *RS* arising near the maim fork of *M*. The base of *M* free; *MA* and *MP* well sclerotized; *MA* with 4-6, *MP* with 2-3 branches, *M5* distinct. The area between *CuA* and *CuP* near the base relatively narrow: as wide as area between *CuP* and *A1*. *A1* simple, *A2* with partly forked branches. Cross-veins simlpe or forming a double row of cells. Hind wing of subimago similar with imago, but veins broader.

RELATIONS. New family seems to be the most primitive within Carboniferous Grylloblattida and characterized by presents of the main apomorphies of this order, i.e. a concaved and distinctly desclerotized near the middle *MP* and simple *CuP* of fore



Figs. 1-4. Daldubidae fam.n. - 1) *Daldubafaticana* sp.n., fore wing of holotype, spec. N 3115/77; 2-4) *Vresalduba nervosa* sp. n., imago: 2) fore wing, holotype, spec. N 3115/212; 3) same, paratype, spec. N 3115/216; 4) hind wing, paratype, spec. N 3115/124. Explanations of veins see in text.

wing, an arch-like near the base *CuA* of hind wing; fore wings folding over abdomen at rest and hind wing anal area enlarged and bending down at rest along fold before *A2*. Family Narkeminidae seems to be originated from the forms closely related to genus *Vresalduba* gen. n. Family Protoperlidae probably arises from the forms similar to genus *Dalduba* gen. n.

GENERA INCLUDED. Two genera from Upper Carboniferous of Siberia.

Genus *Dalduba* Storozhenko, gen. n.

Type species: *Dalduba faticana* Storozhenko, sp. n.

DIAGNOSIS. Cross-veins in radial area of fore wing forming a double row of cells. Main stem of *CuA* giving off a series of about 6-8 branches, directed to posterior margin of fore wing.

SPECIES INCLUDED. Type species only.

***Dalduba faticana* Storozhenko, sp. n. (Fig. 1)**

MATERIAL. Holotype - Imprint and counter-imprint of fore wing of imago, specimen N 3115/77; Russia: Krasnoyarskii krai, left bank of Chunya River about 12 km lower of mouth of Eroba River; Upper Carboniferous, Kamian Stage; in PIN RAS. Paratypes - Imprints and counter imprints of fore wing of imago, specimens N 3115/78 and N 3115/214 from same locality.

DESCRIPTION. Length of fore wing 39.0-42.0 mm, width of fore wing 11.0 mm.

Genus *Vrezalduba* Storozhenko, gen. n.

Type species: *Vrezalduba nervosa* Storozhenko, sp. n.

DIAGNOSIS. Cross-veins in radial area of fore wing simple. Main stem of *CuA* giving off anteriorly a series of about 3-5 anterior branches, very regularly arranged, most of which fork dichotomically.

SPECIES INCLUDED. Type species only.

***Vrezalduba nervosa* Storozhenko, sp. n. (Figs. 2-4)**

MATERIAL. Holotype - Imprint and counter-imprint of fore wing of imago, specimen N 3115/212; Russia: Krasnoyarskii krai, left bank of Chunya River about 12 km lower of mouth of Eroba River; Upper Carboniferous, Kamian Stage; in PIN RAS. Paratypes - Imprints and counter imprints of fore wing of imago (specimen N 3115/216), hind wing of imago (specimen N 3115/124) and hind wing of subimago (specimens N 3115/252 and 3115/254) from same locality.

DESCRIPTION. Length of fore wing of imago 56.0-58.0 mm, width of fore wing 19.0 mm; length of hind wing of imago 56.0 mm; length of hind wing of subimago about 40-42 mm.

1. Carpenter, F.M. 1992. Order Protorthoptera. In: Treatise on Invertebrate Paleontology. Vol. 3: Superclass Hexapoda. Boulder and Lawrence: 97-134.

2. Pinto, I.D. & Ornellas L.P. 1978. Carboniferous insects (Protorthoptera and Paraplecoptera) from the Gondwana (South America, Africa and Asia). - Pesquisas. Inst. Geociencias, U.F.R.G.S. 11: 305-321.

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